

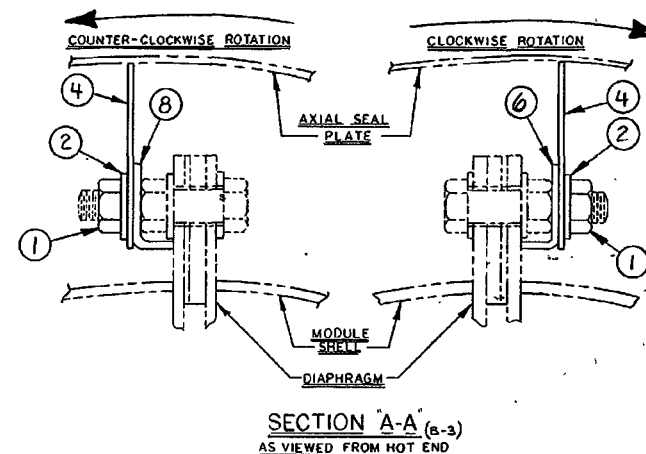
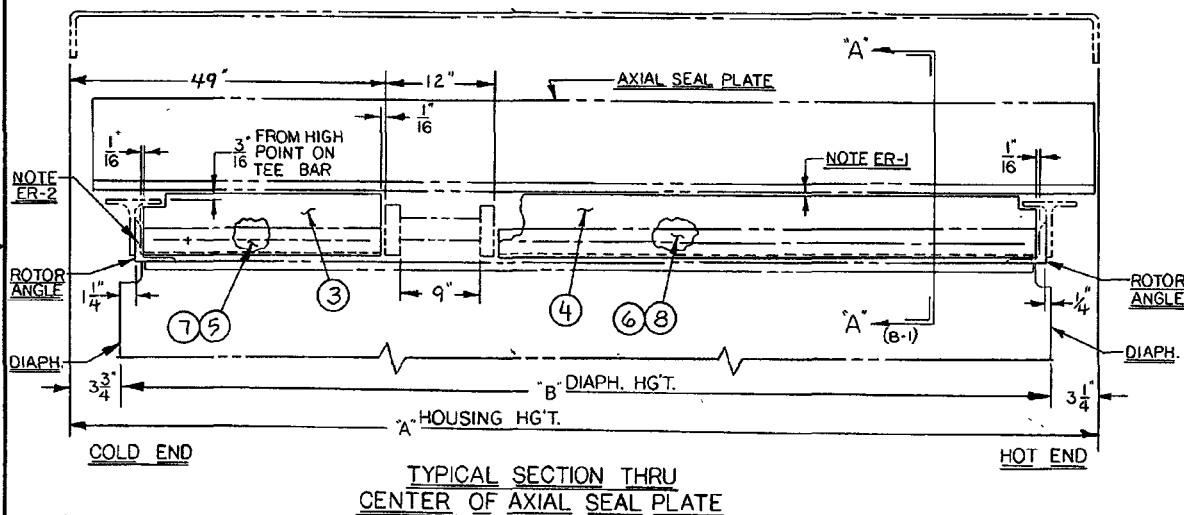
TABULATION									
ASS'Y. REQ'D.	ASS'Y. NO.	TAB "A"	TAB "B"	TAB "C"	TAB "E"	TAB "F"	TAB "G"	TAB "H"	APPROX. ASS'Y WGT.
1	105	98	33	1	2	7	8		
2									
3									

BILL OF MATERIAL						
REF. NO.	PART CODE NO.	DRAWING NO.	REQ'D.	MAT'L.	DESCRIPTION	LOFT
1	32050	P-12-25412	"C"	3205	3/4" FIN. HEX. NUT	SL
2	32140	P-12-25413	"C"	3214	3/4" WASHER	SL
3		D-E-78076	24		AXIAL SEAL LEAF (COLD END)	SL
4		D-F-78076	24		AXIAL SEAL LEAF (HOT END)	SL
THE FOLLOWING TO BE FOR CLOCKWISE ROTATION						
5		D-G-76118	24		FORMED HOLDING STRIP (COLD END)	SL
6		D-H-76117	24		FORMED HOLDING STRIP (HOT END)	SL
THE FOLLOWING TO BE FOR COUNTER-CLOCKWISE ROTATION						
7		D-G-76117	24		FORMED HOLDING STRIP (COLD END)	SL
8		D-H-76118	24		FORMED HOLDING STRIP (HOT END)	SL

## NOTES TO ERECTOR:

ER-1 REFER TO SEAL INSTALLATION &amp; SETTING DRAWING SPECIFIED IN GROUP 2106.

ER-2 NOTCH FORMED HOLDING STRIP TO FIT AT ASSEMBLY.



## 2 LAYER SIDE REMOVAL - DEF. SECTOR PL.

J			
I			
H			
G			
F			
E			
D			
C			
B			
A			
MARK	DATE	ALT.	OKD.
ALTERATIONS			

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SUPERSEDED BY	Subject <b>AIR PREHEATER</b>		<b>PROCESS EQUIPMENT</b> CE AIR PREHEATER WELLSVILLE, NEW YORK			
	Model / Size, Type MOD. 32 1/2 - 34 VI		AXIAL SEAL ASSEMBLY			
	Des. Ch. Dr. KAT Ch. DV		9" CLEAR PIN LENGTH			
	Tr. Ch.		CODES			
	Material		DRAWING NUMBER			
	Skt. No. DATE 3-15-83	SCALE NTS	GROUP 0504	SIZE C	NUMBER 78075	ISSUE
			WT.	SHEET	OF	

NOTES TO ERECTOR:

ER-1) AFTER INSTALLING COLD END BASKETS, INSTALL SEALING BAR ASSEMBLIES BETWEEN HOT AND COLD END BASKETS. DO NOT WELD IN PLACE.

ER-2) SEALS ARE DESIGNED TO FIT TIGHTLY IN EACH COMPARTMENT IT MAY BE NECESSARY TO SLIDE THE SEAL DOWN AGAINST THE DIAPHRAGM VERTICALLY OR TO ANGLE THE SEAL INTO PLACE. TRIM SEALS TO FIT COMPARTMENT ONLY AS LAST OPTION.

ER-3) INSTALL HOT END BASKETS.

MAIN DIAPHRAGM

HOT END BASKET

COLD END BASKET

SECTION "A-A"

1

2

3

4

5

7

9

MAIN DIAPHRAGM

"A"

"B"

"C"

"D"

"E"

"F"

"G"

"FC"

"GC"

"A"

"C"

"D"

"E"

"F"

"G"

8

MAIN DIAPHRAGM

PARTIAL HOT END VIEW

TOP VIEW

TYPICAL "A" BASKET SEAL ASS'Y

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ABB

ABB AIR PREHEATER, INC.

WELLSVILLE, NEW YORK

BASKET SEALING BAR

INSTALLATION

CODE

GROUP

SIZE

DWG NO.

REV

ER

0204

D

SK-010513

SCALE

NTS

WT

SHEET

OF

H				
G				
F				
E				
D				
C				
B				
A				
MARK	DATE	DR.	CK.	COMMENTS
ALTERATIONS				

SUPERSEDES BY	ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	THIRD ANGLE
	SUBJECT AIR PREHEATER	
	API NO.	
	SIZE 33-1/2 VI	
	DR	CK
SUPERSEDES	APPR. BY	
	DATE 5/13/03	

CODE	GROUP	SIZE	DWG NO.	REV
ER	0204	D	SK-010513	
SCALE NTS		WT	SHEET OF	

IP7\_022790

ref

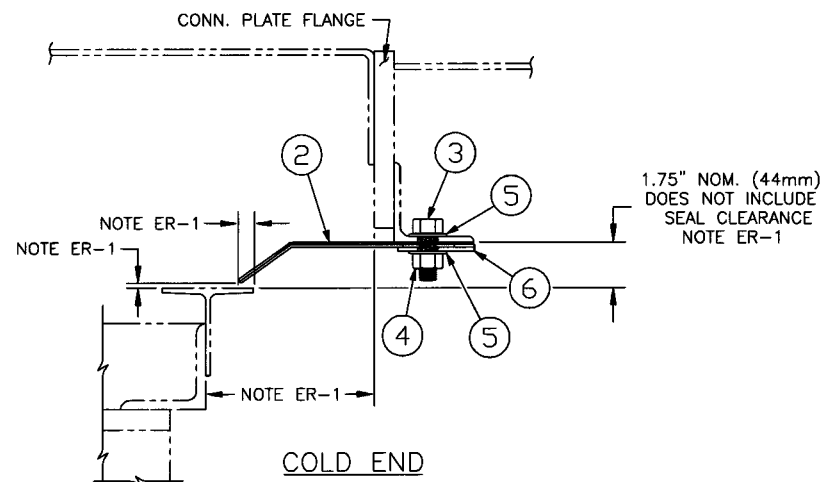
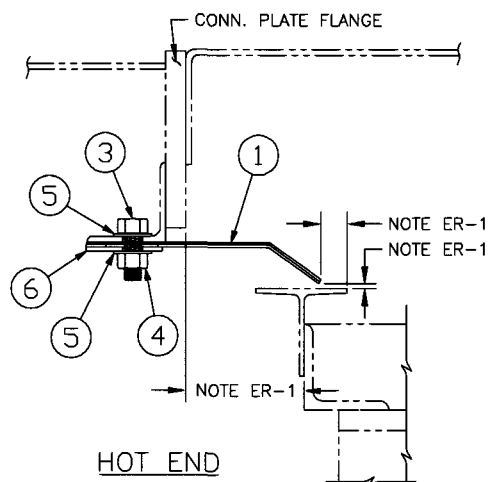
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TABULATION							
ASS'Y. NO	HEATER SIZE	TAB "N"	TAB "P"	TAB "Q"	TAB "R"	TAB "S"	APPROX. WEIGHT
1	24.5	22	176	352	1	44	650#
2	25	22	176	352	2	44	650#
3	25.5	24	192	384	3	48	710#
4	26	24	192	384	4	48	710#
5	26.5	26	208	416	5	52	770#
6	27	26	208	416	6	52	770#
7	27.5	28	224	448	7	56	830#
8	28	28	224	448	8	56	830#
9	28.5	34	272	544	9	68	1040#
10	29	34	272	544	10	68	1040#
11	29.5	36	288	576	11	72	1100#
12	30	38	304	608	12	76	1160#
13	30.5	40	320	640	13	80	1220#
14	31	40	320	640	14	80	1220#
15	31.5	42	336	672	15	84	1280#
16	32	44	352	704	16	88	1345#
17	32.5	46	368	736	17	92	1525#
18	33	48	384	768	18	96	1590#
19	33.5	50	400	800	19	100	1665#
20	34	54	432	864	20	108	1790#
21	34.5	56	448	896	21	112	1900#
22	35	60	480	960	22	120	2023#
23	35.5	62	496	992	23	124	2090#
24	36	64	512	1024	24	128	2156#
25	29	34	272	544	25	68	1040#

BILL OF MATERIAL					
REF	DRAWING NO.	QTY.	MATL	DESCRIPTION	S L
1	B-99296	TAB "N"		BYPASS SEAL (HOT END) ASSEMBLY # "R"	SL
2	B-99296	TAB "N"		BYPASS SEAL (COLD END) ASSEMBLY # "R"	SL
3	P-12-25404	TAB "P"	3201	.63" X 1.5" HEX. HD. CAPSCREW	SL
4	P-10-25412	TAB "P"	3205	.63" FIN. HEX. NUT	SL
5	P-10-25413	TAB "Q"	3214	.63" WASHER	SL
6	E-67599	TAB "S"		BYPASS SEAL HOLDING STRIP	SL

## NOTES TO ERECTOR:

ER-1 REFER TO SEAL INSTALLATION & SETTING DRAWING SPECIFIED IN GROUP 2106 AND GROUP 7000 SHEET.  
ER-2 LINE UP FIRST BYPASS SEAL WITH HOLES IN CONNECTING PLATE SEAL ANGLE TRIM SEALS TO FIT AGAINST SEAL PLATE AND SECTOR PLATE.



TYPICAL SECTION SHOWING BYPASS SEAL

H				
C				
F				
E				
D				
C				
B				
A	3-6-03	JRC	JRC	REMOVED SEQ. NOTES, ADD ALSTOM BORDER
MARK	DATE	DR.	CK.	DESCRIPTION
ALTERATIONS				

W:\STANDARDS\DRAWINGS\STD

SUPERSEDES	ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	THIRD ANGLE		ALSTOM Power Inc. Air Preheater Company Wellsville, New York			
	SUBJECT	AIR PREHEATER		EE-ZEE(TM) BYPASS SEAL FIELD ASS'Y.			
	API NO			CODE	GROUP	SIZE	DWG NO.
	SIZE V-VI-H			ER	0505	C	99297
OR CRW		CK DPV		REV			
APPR. BY				A			
DATE 02-11-2000		SCALE NTS		WT		SHEET OF	

**SAH Clearflow Modifications**  
**IGS03-02**  
**WO 03-96032-0**

During the Spring outages of 2004 (Unit 2) and 2005 (Unit 1) the Secondary Air Heaters were modified to incorporate the Ljungstrom Air Preheater Clearflow Rotor upgrades. This work included rotor modifications (to accommodate new style heat transfer baskets) and installation of new heat transfer baskets.

The major changes to the SAH was the replacement of 4 layers of heat transfer baskets:

- Hot End Layer #22 Ga. "DL" 36" Depth Low Alloy / Corrosion Resistant
- Hot Intermediate Layer #22 Ga. "DL" 16" Depth Low Alloy / Corrosion Resistant
- Cold End Layer #18 Ga. NF-6 13.5" Depth Low Alloy / Corrosion Resistant
- Cold Intermediate Layer #22 Ga. "DL" 9.5" Depth Low Alloy / Corrosion Resistant

With 2 layers:

- Hot End Layer #22 Ga. "DL7" 41" Depth Low Alloy / Corrosion Resistant
- Cold End Layer #20 Ga. "DL7" 41" Depth Low Alloy / Corrosion Resistant

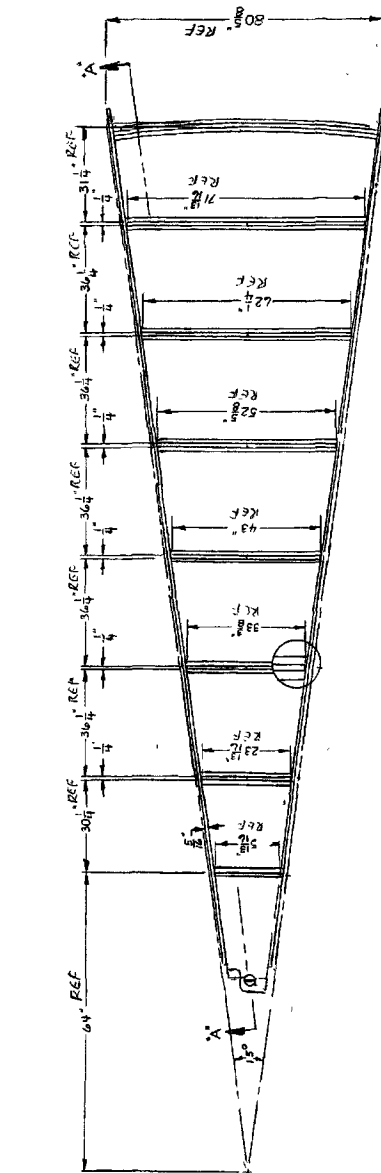
The other changes require modification to how the baskets are supported and better seals around baskets to reduce leakby. Outside doors were skip welded as side removal is not possible with the 41" tall baskets.

The following drawings were provided new as part of these modifications and can be found in the electronic drawing database:

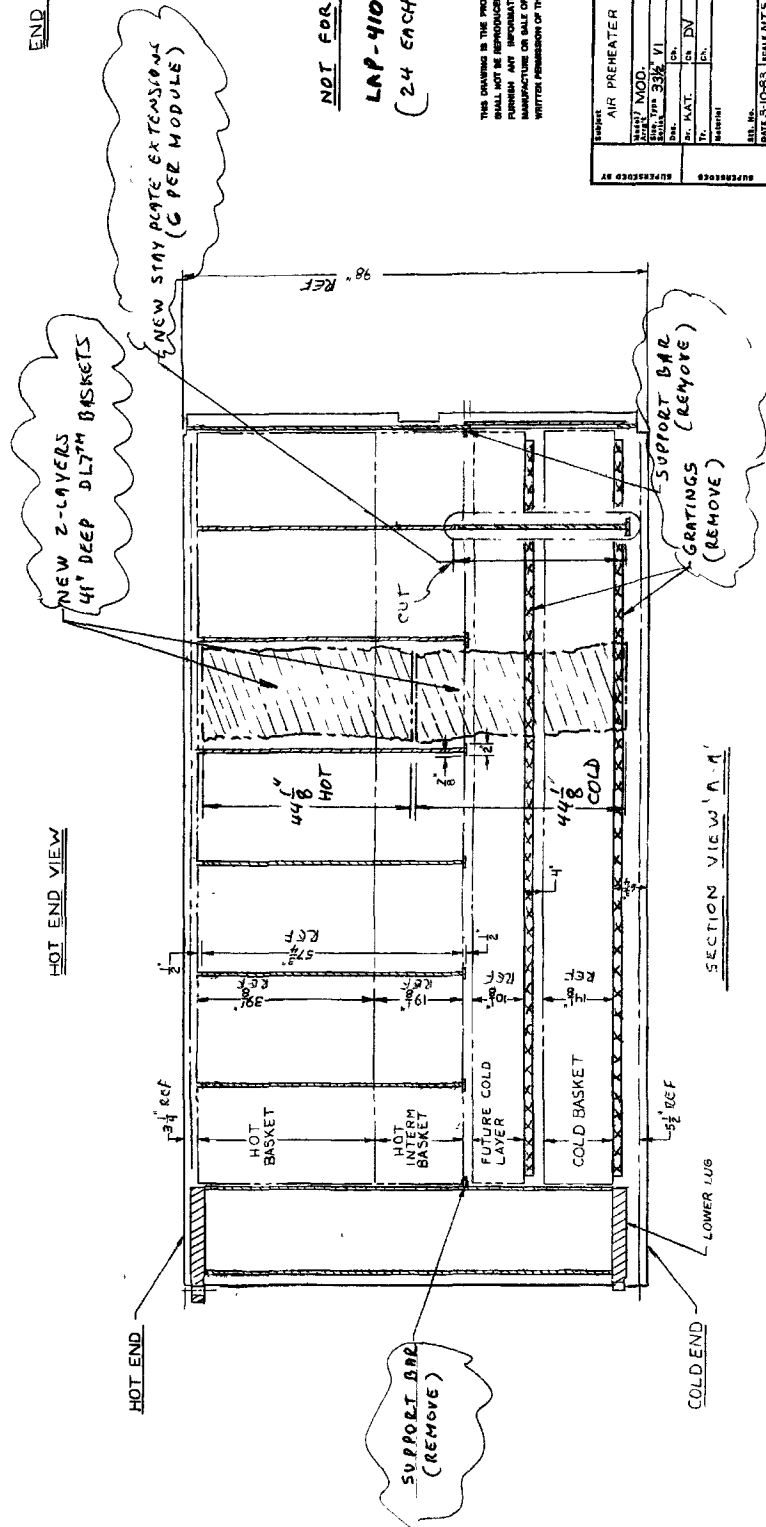
<u>VENDOR DWG</u>	<u>REV</u>	<u>APCO DWG</u>	<u>DESCRIPTION</u>
62.3401.05-90613	P	65357	GENERAL WELDING SPECIFICATIONS
62.3401.05-90614	0	10041587	HOT & COLD END FLOATING T-BAR INSTALLATION
62.3401.05-90615	A	10021477	TENSION RING
62.3401.05-90616	0	098856	REFERENCE TABLE
62.3401.05-90617	B	099297	EE-ZEE(TM) BYPASS SEAL FIELD ASS'Y
62.3401.05-90618	0	099502	LIFTING ARRANGEMENT
62.3401.05-90619	A	10031472	CLEARFLOW ROTOR MODIFICATIONS
62.3401.05-90620	0	10041246	HOT END SEAL CLEARANCE GAUGE ASS'Y
62.3401.05-90621	0	80030674	BASKET ARRANGEMENT
62.3401.05-90622	0	80030675	BASKET SEALING BAR ARRANGEMENT

Relevant drawing to this modification that were not altered:

<u>VENDOR DWG</u>	<u>REV</u>	<u>APCO DWG</u>	<u>DESCRIPTION</u>
62.3401.05-90615	A	78077	SEC AIR HEATER RADIAL SEALS ASSEMBLY #3
62.3401.05-90044	0	78075	SEC AIR HEATER AXIAL SEALS ASSEMBLY #1
62.3401.05-90034	A	935428	SECONDARY AIR HEATER ROTOR ASSEMBLY #1



HOT END VIEW

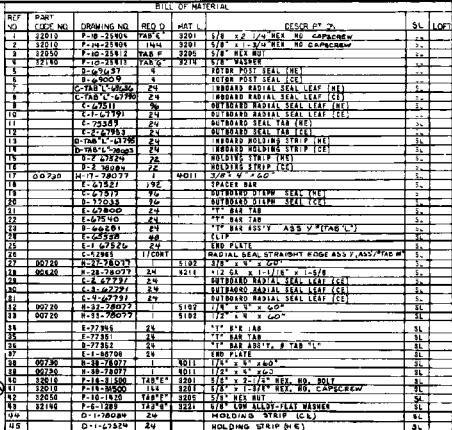


LAP-4100 EXISTING MODULE  
(24 EACH AH ROTOR)

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ALTERATIONS				



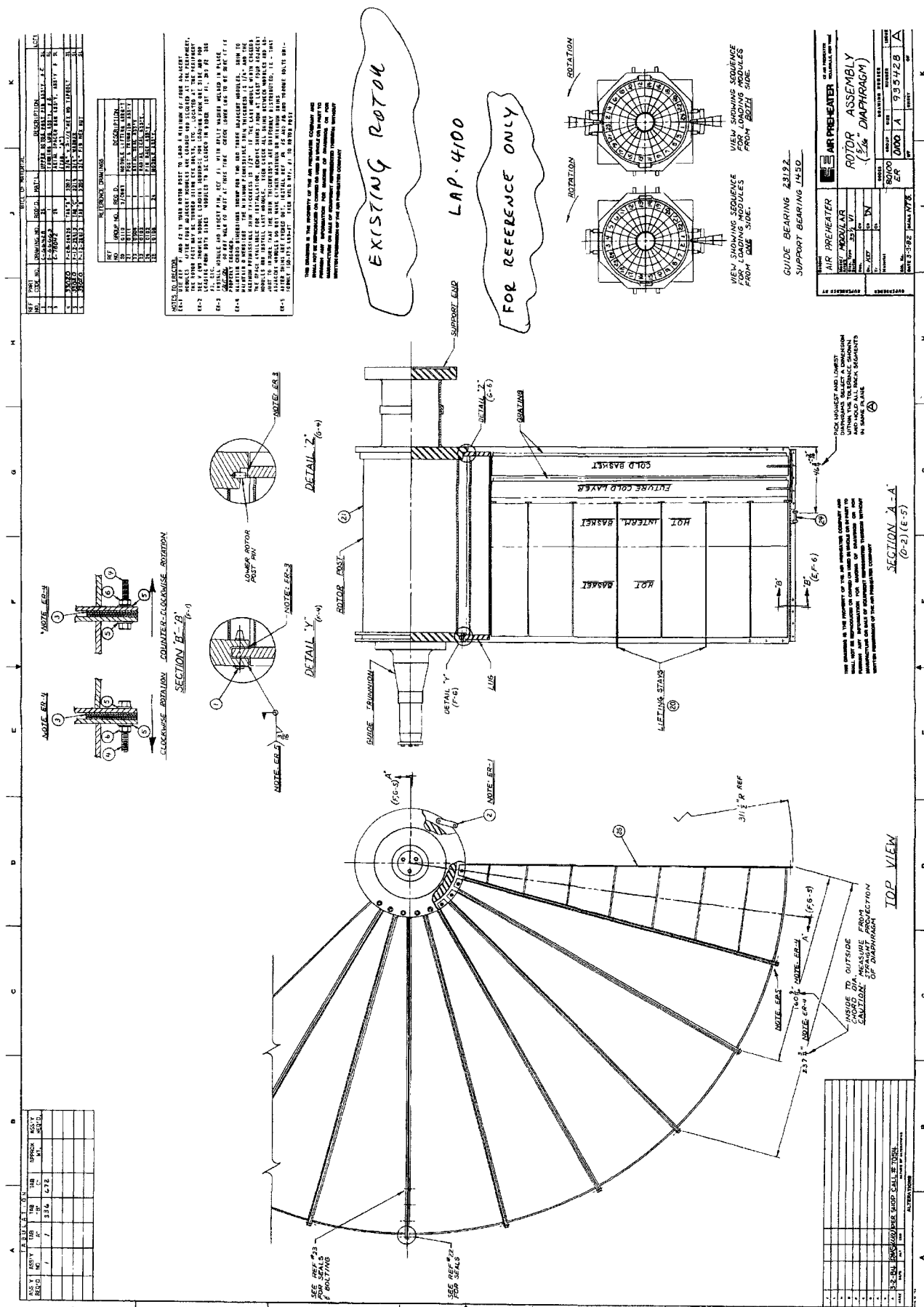
THE FOLLOWING TO BE USED FOR COUNTER-CLOCKWISE ROTATION					
62	1-TAB "L" - 872/C	24	INBOARD OIAPH SEAL H E (OPP. HAND)	SL	
63	1-TAB "L" -	24	INBOARD OIAPH SEAL C E (OPP. HAND)	SL	

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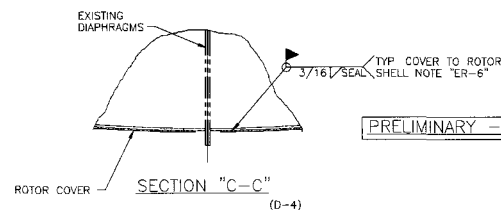
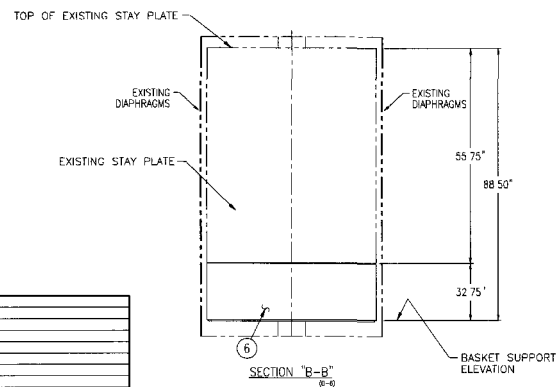
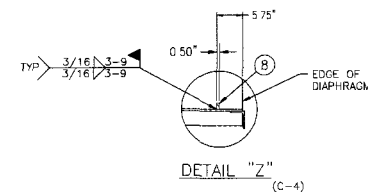
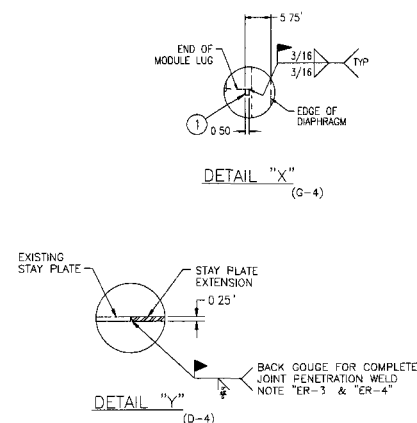
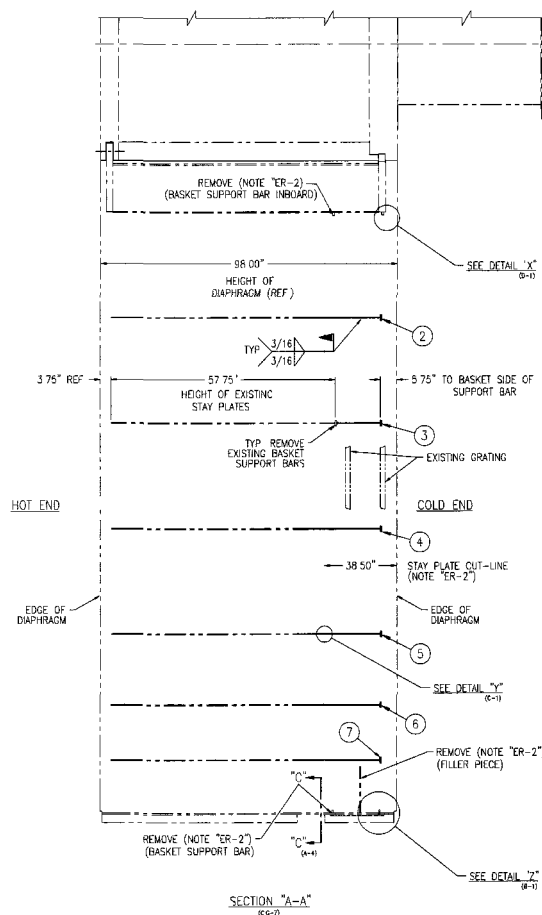
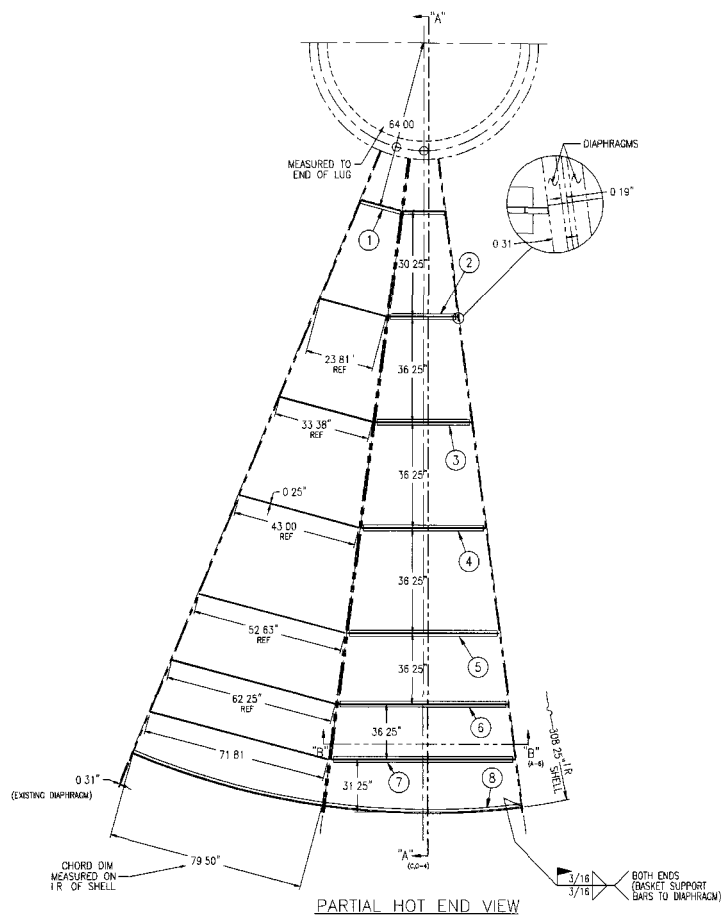
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BILL OF MATERIAL				
REF	Drawing #	QTY	MATL	DESCRIPTION
1		24		BASKET SUPPORT BAR (INBOARD)
2		24		"A" STAY PLATE EXTENSION ASSEMBLY
3		24		"B" STAY PLATE EXTENSION ASSEMBLY
4		24		"C" STAY PLATE EXTENSION ASSEMBLY
5		24		"D" STAY PLATE EXTENSION ASSEMBLY
6		24		"E" STAY PLATE EXTENSION ASSEMBLY
7		24		"F" STAY PLATE EXTENSION ASSEMBLY
				BASKET SUPPORT AT SHIELD


NOTES TO ERECTOR

- ER-1 REMOVE ALL ELEMENT BASKETS FROM ALL LAYERS BEFORE PERFORMING ROOF MODIFICATION WORK.
- ER-2 REMOVE THE EXISTING BASKET SUPPORT BARS AND FILLER PINS AND DISCARD TRIM STAY PLATES TO THE CUT LINE DIMENSION SHOWN IN SECTION "A-A" AND REMOVE BASKET SUPPORT BARS.
- ER-3 INSTALL THE STAY PLATE EXTENSIONS AS SHOWN. (EXTRA CARE SHOULD BE TAKEN TO MAKE SURE THAT THE STAY PLATE EXTENSIONS LINE UP WITH THE CORRESPONDING EXISTING STAY PLATES.) MAINTAIN BASKET SUPPORT ELEVATION FLAT WITHIN 1/8".
- ER-4 REMOVE GROUT, THEN FIT TACK AND WELD STAY PLATE EXTENSIONS, IN A SEQUENCE OF OVERLAP OTHER COMPARTMENT, BUT ONLY WORKING IN ONE COMPARTMENT AT A TIME UNTIL THE WHOLE ROOF HAS BEEN WELDED.
- ER-5 INSTALL THE INBOARD AND OUTBOARD BASKET SUPPORT BARS REF #1 & 2 AS SHOWN AND WELD INTO PLACE.
- ER-6 CENTER EXISTING COVER OVER SHELL OPENING AND WELD AS SHOWN ON THE COVER (IF REFERRED TO SECTION C-C) REMOVE AND DISCARD ALL WELD STUDDS IF DESIRED.



PRELIMINARY - NOT TO BE USED FOR CONSTRUCTION

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SUPPLEMENTED BY SURVEILLANCE	ALL DIMENSIONS ARE IN INCHES UNLESS OTHER- WISE SPECIFIED	 N MAG. ANGLE	ALSTON Power, Inc. Air Preheater Company Philadelphia, New York			
	SUBJECT AIR PREHEATER		ROTOR MODIFICATIONS			
	API NO					
	SIZE 33.5 VI MOD					
	ON ACS <input checked="" type="checkbox"/> OK		CODE	GROUP	SIZE	ENG NO
APPR BY		ER 0100	E SKETCH			
DATE 5-12-03		SCALE NTS	WT	SHEET OF		

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